

Brian Weaver

CONTACT INFORMATION	<p>Statistical Sciences, CCS-6 Los Alamos National Laboratory P.O. Box 1663, MS F600 Los Alamos NM 87545</p> <p><i>Work:</i> (505) 667-6227 <i>E-mail:</i> theguz@lanl.gov</p>
RESEARCH INTERESTS	<p>Applying statistical methods to the engineering and physical sciences, Bayesian and maximum likelihood methods, reliability, astrostatistics, optimal experimental design (both classical and Bayesian).</p>
EDUCATION	<p>Ph.D. in Statistics</p> <p>Iowa State University, Ames, IA, May 2011</p> <ul style="list-style-type: none">• Thesis title: Methods for planning repeated measures degradation tests• Adviser: William Q. Meeker <p>M.S. in Statistics</p> <p>Iowa State University, Ames, IA, December 2009</p> <ul style="list-style-type: none">• Adviser: William Q. Meeker <p>B.S. in Applied Mathematics</p> <p>University of New Mexico, Albuquerque, NM, May 2006</p> <ul style="list-style-type: none">• Magna cum laude, Kappa Mu Epsilon• Minor in Earth and Planetary Sciences
EMPLOYMENT HISTORY	<p>Los Alamos National Laboratory, Los Alamos, NM</p> <p>Scientist, 2011-Present</p> <ul style="list-style-type: none">• Statistical Sciences, CCS-6 <p>GRA, 2010 - 2011</p> <ul style="list-style-type: none">• Nuclear Material Control and Accountability, SAFE-4 <p>GRA, 2006 - 2010</p> <ul style="list-style-type: none">• Statistical Sciences Group, D-1, CCS-6 <p>Iowa State University, Ames, IA</p> <p>Research Assistant, 2006-2010</p> <ul style="list-style-type: none">• Department of Statistics

AWARDS

Graduate Student Awards

- Jebe Fellowship, Iowa State University, 2006

TEACHING EXPERIENCE

Des Moines Area Community College, Ankeny, IA USA

Adjunct Instructor

August 2009 to May 2010

- Instructor for Prealgebra, Fall 2009
- Instructor for Introduction to Statistics, Spring 2010

PUBLICATIONS

Weaver, B. P., Meeker, W. Q., Escobar, L. A., Wendelberger, J. “Methods for Planning Repeated Measures Degradation Studies.” To be published in *Technometrics*.

Weaver, B. P., Hamada, M. S., Wilson, A. G., Vardeman, S. B. “A Bayesian Approach to the Analysis of Gauge R & R Data.” *Quality Engineering*, 24, 486-500 (2012).

Burr, T., and **Weaver, B.P.** “Bayesian Options for Computer Model Calibration with Examples in Astronomy.” *Far East Journal of Theoretical Statistics*, 40, 1-30 (2012).

Burr, T., Croft, S., Hamada, M.S., Vardeman, S., **Weaver, B.** “Rounding error effects in the presence of underlying measurement error”. *Accreditation and Quality Assurance*, (2012).

Burr, T., Hamada, M. S., Cremers, T., Howell, J., Croft, S., **Weaver, B. P.**, Vardeman, S. “Measurement Error Models and Variance Estimation in the Presence of Rounding Error Effects”. *Accreditation and Quality Assurance*, 16, 347-359 (2011).

Weaver, B. P., and Hamada, M. S., “A Bayesian Approach to the Analysis of Industrial Experiments: an Illustration with Binomial Count Data.” *Quality Engineering*, 20, 269-280 (2008).

PUBLICATIONS IN PREPARATION	<p>Weaver, B. P. and Vander Wiel, S. “Accelerated Events with Multiple Thresholds.” Submitted to <i>Journal of the American Statistical Association</i>.</p> <p>Hamada, M.S., Wilson, A.G., Weaver, B.P., Griffiths, R.W., Martz, H.F. “Bayesian Binomial Assurance Tests for System Reliability Using Component Data.” Submitted to <i>Journal of Quality Technology</i>.</p> <p>Collins, D.H., Freels, J. K., Huzurbazar, A.V., Warr, R.L., Weaver, B. P. “Accelerated Test Methods for Reliability Prediction” Submitted to <i>Journal of Quality Technology</i>.</p> <p>Weaver, B. P. and Meeker, W. Q. “Methods for Planning Accelerated Repeated Measures Degradation Studies.” To be submitted to <i>Technometrics</i>.</p> <p>Weaver, B.P., Hamada, M.S. “Bayesian Assurance Tests Using Degradation Data.” To be submitted to <i>Technometrics</i>.</p>
TECHNICAL REPORTS	<p>Weaver, B. P. “Solving for Beta, Gamma, and Weibull Parameters Given Two Quantiles: A Program In R.” Los Alamos National Laboratory: July 15, 2006 (LA-UR-07-5529).</p>
INVITED PRESENTATIONS	<p>“Big Data Challenges at Los Alamos National Laboratory.” Panelist for the topic contributed panel “Big Data: Research and Training Challenges.” <i>Joint Statistical Meetings</i>. San Diego, CA. July 2012.</p> <p>“Assessing Properties of a Predictive Distribution Subject to Measurement Error.” <i>Quality and Productivity Research Conference</i>. Long Beach, CA. June 2012.</p> <p>“Estimating Single-Insult Failure Probabilities from Multiple-Insult Accelerated Tests.” <i>Fall Technical Conference</i>. Kansas City, MO. October 2011.</p> <p>“An Algorithm for Computing Approximate Variances and Covariances of Model Parameters from a Repeated Measures Degradation Model with Applications.” <i>Quality and Productivity Research Conference</i>. Madison, WI. June 2008.</p> <p>“Statistics Projects at Hy-Vee.” <i>Iowa Chapter of the American Statistical Association</i>. Des Moines, IA. April 2008.</p>
CONFERENCE PROCEEDINGS	<p>“A Bayesian Approach to the Analysis of Gauge R & R Data.” <i>Institute of Nuclear Material Management Annual Meetings</i>. Palm Desert, CA. July 2011.</p> <p>“Applying Bayesian Statistical Methods to Applications in Safeguards.” <i>Institute of Nuclear Material Management Annual Meetings</i>. Palm Desert, CA. July 2011.</p>

PROFESSIONAL
SERVICES

Journals Refereed

- The American Statistician
- Technometrics
- Journal of Statistics Education
- Lifetime Data Analysis

PROFESSIONAL
MEMBERSHIP

- American Statistical Association
- Institute of Mathematical Statistics
- International Astrostatistics Association

COMPUTER
EXPERTISE

Statistical Software: R, JMP, SAS, Matlab
Programming Languages: C, C++, Visual Basic
Applications: \TeX , \LaTeX , \BibTeX , Microsoft Office
Operating Systems: Microsoft Windows, Apple OS X, some Linux